



EWA MILL TO TEST NEW DEVICE

Feed Roller of Cast Steel With Hind-Renton Grooving Is Ready

New Type of Grooving Claimed To Render Cast-Iron Type Roller Obsolete

Local sugar men are much interested in a cast steel feed roller for Ewa Mill, which has just been made by the Honolulu Iron Works company, for the reason that this is the first grooved roller of cast steel ever to be used in Hawaii. The roller is equipped with the Hind-Renton system of grooving, which is invented and successfully used on cast iron rollers last season at Ewa Mill.

The inventors claim that it is no longer necessary to use brittle cast-iron on feed rollers of mills as cast-steel will more successfully resist the destructive action of sugar-couplings, limbs, and other foreign matter, which unavoidably enter the mills along with the cane. This roller, the shell of which is cast at Bethlehem, Pa., the shaft being fitted and the grooving done here, will be tried out during the 1915 crop grinding on which begins next week and the results therefrom will be very eagerly watched for.

Attracts Mainland Notice
The November number of "Sugar," published in Chicago, gives the following description of this new system of grooving which has attracted wide interest in sugar countries besides Hawaii:

"In all mills for crushing sugar cane it is necessary that the surface of the feed roller be of such shape or texture that the cane may be gripped between it and the top roll, so that (1) as large a quantity of cane as possible may be crushed, and (2) that by the increase of pressure due to the increase of quantity of cane being thus drawn between the feed roll and the top roll, an increase in the quantity of cane which will result. To obtain this result it has heretofore been considered that the texture of surface of the roller was of paramount importance; that a rough surface grips the cane far better than a smooth surface; and the aim of all manufacturers has been to obtain a material for mill rolls which would retain such a rough surface, and keep it under working conditions.

Soon Wear Out
"Some good results have been obtained along this line, but in the majority of cases the roughness of the surface of the roller wears off, owing to slippage, and eventually a smooth surface results, which, with the style of roll grooving generally used, fails to grip the cane, and draw it into the opening between the rollers in large quantities as when the roller is new, and, consequently, imperfect crushing, and its concomitant decrease in quantity of juice expressed, results.

New Improvement
"In a groove of the shape as usually made, the bagasse and the juice are intermingled and are forced to the bottom of the groove. The tendency of this juice is to lubricate the sides of the groove and cause slippage. If, as under the Hind-Renton system, a groove of thirty degrees be used, the bagasse does not extend beyond half the depth of the groove, and into this lower, unobscured space the container juice is free to flow. This results in the layer of bagasse being wedged against the sides of the groove in a 'boot-jack' fashion, and in the absence of the lubricating influence of the juice, slippage is prevented.

"Under such conditions surface texture of roller material need not be a factor in the manufacture of rollers, and a means is provided for the use of cast steel instead of cast iron. Any roller, with the present grooving, is well known, will undergo a rapid reduction in diameter if slippage occurs between its surface and that of the entering blanket of bagasse, and this is why close-grained, smooth surfaced cast iron roller have never been used with success in the past in cane-mill rollers.

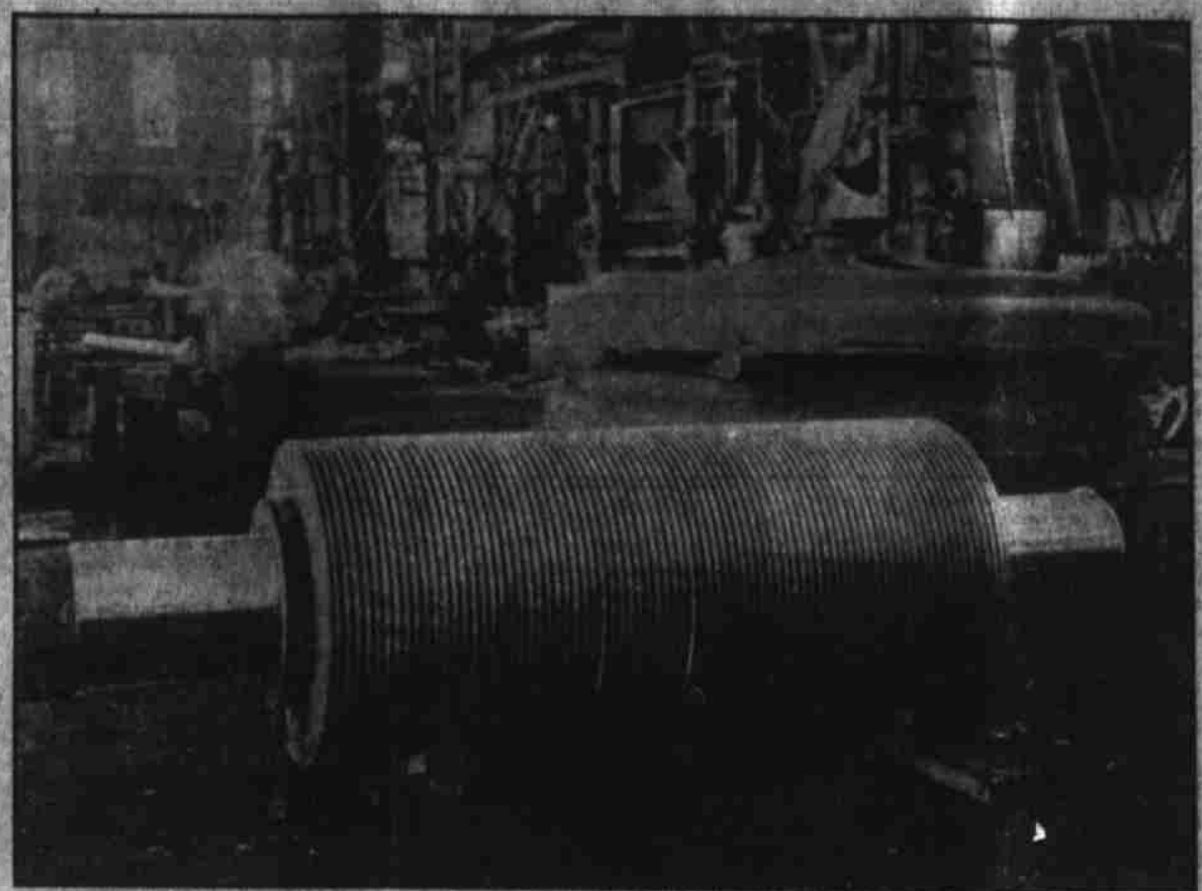
"Below are given a few figures from Ewa Mill records, which prove conclusively that the new system of grooving is very much superior to any employed before, and they serve to point out that an attainment of an extraction of over 98 per cent for a crop average is not an impossibility.

Highest Extraction Figure for	Day	Week	Month	Average
Campaign 1913	97.88%	97.07%	97.82%	96.77%
Campaign 1914 (Hind-Renton grooving)	98.55%	98.28%	98.20%	97.68%

MUNICIPAL EMPLOYEE WILL TAKE A BRIDE

A license was issued yesterday for the marriage of Herman J. Baldwin and Mrs. Gertrude Smith. Mr. Baldwin is the chief engineer of the city pumping station and resides at 1745 Kama street. The bride-to-be resides at 1337 Pennacola street. Mrs. Smith announced last night that the wedding would be celebrated "within the next few days."

First Cast Steel Feed Roller, In Shops of Honolulu Iron Works, Ready For Shipment For Ewa Mill For Interesting Test During 1915



WAIANAE COMPANY FINISHES CROP

Has Record of Being Only Dry Plantation in Irrigated Territory

The Waianae company finished grinding its 1914 crop November 26 with a total of 4512 tons. Manager Frederick Meyer stated yesterday that the 1915 crop depends entirely on there being adequate rainfall during the coming season.

The plantation has suffered from drought for eight consecutive years and in that time the water level in the wells from which the irrigation water is pumped has fallen from thirteen feet above sea level to nine feet below. The salt content has risen so high that it is prohibitive to use pumped water on the fields without freshening it with the meagre streams from the mountains. The weather conditions should change and the Waianae mountains once again receive their share of the abundant rains that have blessed every other portion of Hawaii this plantation should yield a 7000 ton crop next year. If there are no general rains the crop will not exceed 5000 tons.

The Waianae company has a large acreage of very fine cane lands if only an abundant water supply could be brought to them. With the exception of the water supply this plantation is potentially a great producer.

BERGSTROM-YARRINGTON

John R. Bergstrom, a well known Honolulu man, who is traveling representative of the Honolulu Music Company, and Miss Eugenia Yarrington of San Francisco, were married last night at eight o'clock. Rev. John W. Wadsworth, D.D., performed the ceremony. The wedding was a quiet one, none but the immediate relatives of the groom being present.

The bride is a well-known society belle of the Bay City and arrived here yesterday on the Mauna.

Mr. and Mrs. Bergstrom will leave on the Mauna Kea today to spend their honeymoon on Maui.

THE IDEAL SYMBOL

When the appointment of Sir John French to the command of the British Expeditionary Force was announced a Paris paper remarked that his name itself was an augury of Franco-British concord. For it has been left to a point out that the combination of the names of the French and British commanders results in an ideal symbol of confidence and harmony.

J. O'FERR

FRENCH

Highest Extraction Figure for	Day	Week	Month	Average
Campaign 1913	97.88%	97.07%	97.82%	96.77%
Campaign 1914 (Hind-Renton grooving)	98.55%	98.28%	98.20%	97.68%

CHRONIC DIARRHOEA.

Are you subject to attacks of diarrhoea? Keep absolutely quiet for a few days, rest in bed if possible, be careful of your diet and take Chamberlain's Colic, Cholera and Diarrhoea Remedy. This medicine has cured cases of chronic diarrhoea that physicians have failed on, and it will cure you. For sale by all dealers. Benson, Smith & Co., Ltd., agents for Hawaii.

HAWAIIAN SUGAR CROP 1913-1914

From October 1, 1913, To September 30, 1914.
(Compiled by Bureau of Labor and Statistics, Hawaiian Sugar Planters' Association.)

The following table gives the totals of the Hawaiian sugar crop for the period from October 1, 1913, to September 30, 1914, according to data compiled by the bureau of labor and statistics of the Hawaiian Sugar Planters' Association.

Plantation	Tons
C. Brewer & Co., Ltd.	138,179
Alexander & Baldwin, Ltd.	144,281
H. H. H. & Co., Ltd.	125,448
Castle & Cooke, Ltd.	65,261
Theo. H. Davies & Co., Ltd.	55,949
Bishop & Co.	25,730
P. A. Schaefer & Co., Ltd.	15,425
Maize Sugar Co.	10,490
Hind, Ralph & Co.	6,745
Henry Waterhouse Trust Co., Ltd.	6,397
J. M. Dowsett	3,083
H. M. von Holt	992

By plantations and islands the total crop is as follows:

Islands	Total Tons
Hawaii—	
Olaia Sug. Co., Ltd.	25,730
Waialae Mill Co.	13,922
Hilo Sug. Co.	18,937
Hawaii Mill Co., Ltd.	3,961
Onoia Sug. Co.	9,900
Pepee Sug. Co.	8,567
Honouliuli Sug. Co.	16,843
Laupahoehoe Sug. Co.	11,193
Kaunakakai Sug. Co., Ltd.	9,932
Kauai Sug. Co.	3,225
Maui Sug. Co.	7,057
Maui Sug. Co., Ltd.	10,767
Honolulu Sug. Co.	5,272
Maui Sug. Co.	5,550
Niihau Mill & Plan.	2,700
Maui Sug. Co.	2,987
Kohala Sug. Co.	4,475
Union Mill Co.	3,608
Hawai Mill & Plan.	6,745
Maui Sug. Co.	1,035
Kona Sug. Co., Ltd.	3,477
Honolulu Sug. Co.	5,500
Hawaiian A. F. Co.	17,890
Total	217,654

Maui—	
Pioneer Mill Co., Ltd.	28,302
Olaia Sug. Co.	2,987
Waialae Sug. Co.	16,100
Hawai Com'l & Sug. Co.	56,590
Maui Agri. Co.	35,400
Kaunakakai Sug. Co., Ltd.	3,225
Kipahulu Sug. Co.	2,126
Total	144,940

Oahu—	
Honolulu Plan. Co.	20,154
Oahu Sug. Co., Ltd.	33,474
Ewa Plan. Co.	29,563
Apakana Sug. Co.	925
Waianae Co.	3,083
Waialae Agri. Co., Ltd.	30,298
Kahuku Plan. Co.	8,193
Lele Plan.	1,690
Koolau Agri. Co., Ltd.	1,137
Waimanalo Sug. Co.	5,133
Total	133,569

Kauai—	
Lihoe Plan. Co., Ltd.	22,005
Grove Farm Plan.	4,415
Keloa Sug. Co.	8,572
Melville Sug. Co., Ltd.	16,345
Hawaiian Sug. Co.	26,896
Gay & Robinson	5,172
Waimea Sug. Mill Co.	2,258
Kekaha Sug. Co., Ltd.	17,153
Estate V. Knudsen	992
Kilauea Sug. Plan. Co.	6,426
Maize Sug. Co.	10,600
Total	120,884

Total 617,038

Experiments in France have demonstrated that the best signals to be displayed from the ground for aviators are A-able numerals in white or a black background.

BEET HARVEST IS FINISHED

Yields Better Than Anticipated and Sucrose Content High

In their latest issue Willett & Gray have the following notes in regard to the beet sugar crop:

The campaign at Oxnard, California, ended on October 31st after a very satisfactory season of ninety-two days, compared to 111 days last year.

At Betteravia the campaign continues smoothly, the yields have proved high in sugar and purity while the tonnage is well up to early estimates. In southern California the campaign will be generally finished by November 15th. The weight of the beets has proved very good, but the sugar content is not up to normal.

The Alameda Sugar Company, in its search for acreage for 1915, is said to be meeting with good success. A large portion of the beets will be grown on the company's own land, which will be worked by farmers on shares.

Eighty-five per cent of the beet crop in the Bear River Valley, Utah, was out of the ground by November 1st. The Garland factory was running smoothly, labor being plentiful. The campaign is expected to end about January 1st. The Payson factory is receiving beets from Sanpete County, in southern Utah, as well as from the Lehi district. The Utah-Idaho Sugar Co. is considering the erection of a large sugar warehouse at Lehi.

In all parts of Colorado the yields are reported to be turning out better than had been expected. The weather has generally favored the harvesting of the crop. The rains, which have fallen from time to time, have kept the ground loose and not interfered sufficiently with harvesting to delay manufacturing. However, there has been little chance to harvest beets faster than the factories could work them until recently, when silencing started. An attempt is being made to get all the beets out of the ground and into silos before cold weather, if not delivered, so that they will not get frozen in, as happened to many acres last year.

Grand Island, Nebraska, is reported to be enjoying one of the best campaigns in the factory's history. Beets are testing well. Siloing near Seattle, Wash., was started during the first week of October, and 40,000 tons were under cover by October 23rd. To that time the factory had received almost 100,000 tons. The tonnage is about the same as last year, but the sugar content 1 per cent better.

The Decatur (Indiana) factory is working many more beets than last year and they are of considerably better quality. For next year the company is offering a contract based on the price of sugar, giving the price of 100 lbs. of sugar for a ton of beets, but guaranteeing \$5 per ton.

It took a jury in Judge Ashford's court two hours yesterday to learn that it could not agree on whether or not Candido Aime Parrillar, charged with first degree burglary, had stolen a five-dollar watch from the house of a Chinaman in Aala lane that Candido was alleged to have entered. The jury, it was said about the courtroom, divided into hostile camps and so much so that the respective wings were at one time in greater danger of something happening to one or the other than was the defendant.

LEGISLATION FOR FREE SUGAR GREAT MENACE OF PLANTATIONS

HAWAII MUST PUT HOUSE IN ORDER FOR FREE SUGAR AFTER MAY, 1916

MUCH has transpired, giving ample reason for congress to retain the duty on sugar, and the federal government at the present time is badly in need of revenue. Congress has passed a Revenue Act, taxing innumerable articles, but it seems to be the determination of the party in power to continue its free sugar policy. I do not believe any change of attitude in this respect will take place while the Democratic party is in control of the congress, unless forced by a need of revenue even greater than caused, up to the present time, by the European War. * * * After May, 1916, we must have our house in order to produce sugar in competition with the world, without the protection by tariff that has heretofore safeguarded us, or else go to the wall.—From opening address to the members of the Hawaiian Sugar Planters' Association, by E. Faxon Bishop, president of the association.

E. FAXON BISHOP SOUNDS WARNING

Cane Growers and Millers Hear Their Retiring President Extol Scientific Achievements

(From Wednesday Advertiser.)

Announcing a new crop record and following it up with a warning for the near future, E. Faxon Bishop, president of the Hawaiian Sugar Planters' Association yesterday welcomed the members of that association to their thirty-fourth annual meeting, his address being one of congratulation for the advance the application of scientific methods had brought to the sugar industry of Hawaii, liberally damped down with words of conservative warnings of the probable outcome of the free sugar legislation and the almost inevitableness of the carrying through to the bitter end of the Democratic plan for 1916.

An Important Gathering

Fifty-four members of the association were present when President Bishop made his opening address, the representatives of thirty-six of the sugar corporations, an attendance that testifies to the extreme importance attached to this gathering in preparation for the coming of free sugar.

Those who answered the roll call were: C. H. Atherton, F. C. Atherton, R. D. Baldwin, F. P. Baldwin, E. F. Bishop, A. W. T. Bottomley, E. K. Hull, W. H. Habbitt, Robert Catton, George Chalmers, J. P. Cooke, Richard A. Cooke, James Campsie, J. M. Dowsett, C. F. Eckart, George R. Ewart, George R. Ewart, Jr., H. Focke, David Forbes, A. Gartley, George Gibb, W. W. Goodale, J. P. C. Huggins, John Hind, Wm. G. Hall, Chas. R. Hemenway, James Henderson, Richard Irons, P. C. Jones, A. F. Judd, Abram Lewis, Jr., J. H. Mackenzie, J. T. Moir, Alex. Morrison, T. H. Petrie, Wm. Pullar, Geo. P. Renton, Geo. Rodies, John M. Ross, E. A. R. Ross, R. A. Schaefer, John A. Scott, Alex. Smith, W. O. Smith, F. M. Swamy, E. D. Tenney, J. W. Waldron, L. W. Warren, John Waterhouse, C. W. Wain, James Webster, L. Weissheimer, Chas. H. Wilcox, G. N. Wilcox.

Mr. Bishop's Address
President Bishop's opening address was:

"In an address to this association at the twenty-fifth annual meeting in 1907, I made the statement that the sugar crop of that year, 440,017 tons, was a record breaker.

"Nothing is more significant of the progress of the industry in Hawaii than the fact that the year 1914, with a total crop of 617,038 tons, also makes a new record, showing as it does a gain in total output of forty per cent in seven years. During the past four years, there has been fluctuation in the annual output between 546,000 tons and this year's figure of 617,038 tons, indicating that we are at the maximum and that we may regard 550,000 to 600,000 tons the normal Hawaiian sugar crop.

A Year of Surprises

"The results of our industrial efforts for the year 1914 have certainly been phenomenal and upon the whole satisfactory beyond all anticipation. The year opened with a very depressing outlook. The impending reduction of tariff, which became legally operative on March 1st, began to be discounted in January, and with the large world's supply of sugar in sight for the year, markets were stagnant with a declining tendency, until a minimum of 2.92¢ was reached in April, followed by a moderate and gradual reaction to 3.21¢ in July. At these values, there was, at best, a bare margin of profit in the Hawaiian sugar industry, notwithstanding the fact that climatic conditions were favorable in most districts, and it was apparent that yields were running ahead of estimates.

War Creates Commercial Advantage

"The breaking of the war cloud in Europe, at the end of July, brought a change of great financial advantage to Hawaii, the market price reaching a maximum of 6.53¢ on August 13, followed by reaction and steady decline through September and October, the market price on October 31 being 3.51¢, very nearly the level of price which prevailed at the outbreak of the war. During August and September, favoring chance saw a large quantity of Hawaiian sugar reach market.

"It is perhaps a grossening thought that the horror of war should bring commercial advantage to any industry or to any community, but a careful investigation of the causes bringing this about shows no suspicion of any action on the part of the Hawaiian sugar producers, having to do with the abnormal advances in values which occurred, as above outlined.

Mechanical's Mill Invention

"Looking over the ground of achievement during the year past, it seems to me that in the mechanical line the



J. M. DOWSETT
New President of Hawaiian Sugar Planters' Association

OFFICERS FOR 1915 OF HAWAIIAN SUGAR PLANTERS' ASSOCIATION

J. M. DOWSETT, president.
A. W. T. BOTTOMLEY, vice-president.
W. O. SMITH, secretary and treasurer.
L. J. WARREN, assistant secretary and treasurer.
J. W. WALDRON, auditor.

grooving of mill rollers after the principle devised by Mr. Maeschert of Walpahu, as well as of the study of mill roller setting, are the most significant.

"There are no figures available as to gains made, due to changes in mill grooving and mill setting, but if it could be correctly determined in tons of sugar, I am convinced it would run into large figures. We do know, for instance, that nine roller mills, heretofore rendering an extraction of 93.5 per cent, have improved their efficiency as much as three per cent, and an appreciable gain has been made in every mill that I have any knowledge of where the Maeschert grooving has been adopted.

Commendation For Experts

"While referring to what has been achieved during the year past, I wish

(Continued on Page Eight)



REST AND PEACE

Fall upon distracted households when Cuticura enters.

All that the fondest of mothers desires for the alleviation of her skin-tortured and disfigured infant is to be found in warm baths with

CUTICURA SOAP

And gentle anointings with Cuticura Ointment.



ISLANDS' PLANTERS MEET FOR BUSINESS

Managers and Experts Discuss Problems of Sugar Cultivation and Manufacture

(From Wednesday Advertiser.)

The thirty-fourth annual meeting of the Hawaiian Sugar Planters' Association convened at ten o'clock yesterday morning, president E. Faxon Bishop in the chair. Assistant Secretary T. J. Warren read the minutes of the 1913 meeting, which lasted from November 28 to December 4.

After the delivery of the retiring president's address, the report of W. O. Smith, secretary of the association, was read and accepted.

On motion of John T. Moir, the entire board of trustees was re-elected as follows: E. F. Bishop, E. A. Schaefer, W. O. Smith, A. W. T. Bottomley, E. D. Tenney, J. M. Dowsett, J. P. Cooke, J. P. Hackett and F. M. Swamy.

The president announced that all members and their wives were invited to attend the banquet given Thursday afternoon, as guests of the trustees. The session then adjourned until 1:30 o'clock.

Officers Are Elected

At a meeting of the trustees held immediately after the session had adjourned, the following officers were elected for 1915: J. M. Dowsett, president; A. W. T. Bottomley, vice-president; W. O. Smith, secretary and treasurer; L. J. Warren, assistant secretary and treasurer; J. W. Waldron, auditor.

In the afternoon the real business of the convention was entered into. Brief Presidential Welcome:

J. M. Dowsett, newly elected president of the association, assumed the chair, and briefly addressed the convention. After thanking his associates for the honor conferred upon him, Mr. Dowsett said:

"My only regret in accepting the office of president of this organization for the ensuing year is that my senior in service and ability, F. A. Schaefer, did not care to accept the honor tendered him. His services to our industry during the long years of its growth and development have been of invaluable value.

"In assuming the duties of office I ask the hearty cooperation of all the members and will promise to lend my every endeavor to the perfection of plans for the mutual good of the organization and the industry.

The president then called on J. W. Waldron, chairman of the experiment station committee to lead the discussion. The report of his committee follows:

"In presenting to you your report upon the experiment station for the past year, your committee is charged by the board with the duty of believing that any review of the work accomplished can not well be more concretely presented than is done in the director's report to the committee, presented herewith.

"The steady advancement of the standards of efficiency, and searching analysis of problems under consideration, make each annual showing better than the last. Your station stands as the most profitable investment any sugar industry has ever made. Its cost, moreover, has been appreciably reduced and your committee have at all times sought maximum efficiency at minimum cost. It is hoped that the time is not far distant when the Waialeale station will become practically self-supporting, and in time, a source of profit to be applied in reduction of the general station expense.

Borer Parasites and Birds

"The triumph of the cane borer Tachinid is now well known to you all; the progress made in the search for enemies of the Anomala beetle is such that it is hoped the problem may soon become one of selection, care being necessary that we do not bring to our plantations any insect, in friendly guise, which may in time develop some undesirable trait. Coupled with the pest of the Anomala beetle is that of the Japanese rose beetle, and there is reason to believe that the enemies of the one may prove also destructive of the other. Besides the first shipments of parasites of the Anomala beetle, mentioned in the director's report, others have since been received, and the insects liberated in the affected district.

"Somewhat allied to the topic of entomology is the oft-renewed agitation in various quarters for the importation of suitable varieties of birds which will be useful in reducing some of our insect pests without becoming destructive in other ways. While there can be no question that great care should be exercised in selecting any birds for introduction to these islands, and action taken only after a satisfactory study of their habits and tendencies before they are liberated, it is not to be denied that there are, or at least

(Continued on page eight.)